

~~13~~ 2 ¹⁸ 18. The composition of claim ¹¹ 14 wherein the weight ratio between carvacrol and thymol is from 2:3 to 4:1.

~~13~~ 3 ²⁰ 20. A bactericide which comprises the composition of claim ¹¹ 14 in an amount to kill bacteria.

Please add the following new claims.

~~13~~ 4 ²² 22. A method for treating the hooves of a hoofed animal comprising treatment in a drench bath containing an effective amount of the medicament of claim ¹¹ 14.--

²³ 23. The method of claim ²² 22 wherein the weight ratio of carvacrol to thymol in said medicament is 2:3 to 4:1.--

Remarks

In the official action mailed September 30, 2002 the examiner rejected claims 1, 11-16 and 18-24 under 35 U.S.C. §103(a) over the teachings of U.S. Patent No. 6,106,838 to Nitsas. The examiner also indicated that claim 17 was allowable.

Initially, the examiner is respectfully requested to note that claim 1 has been cancelled and the relevant subject matter thereof has been incorporated into claim 14. Additionally, the dependencies of claims 18 and 23 have been changed from claim 1 to claim 14. Finally, new claims 25 and 26 have been added to the application. Support for these claims can be found at page 1, first paragraph of the application and in the pending claims.

In response to the rejection of record, applicants provide the following distinguishing remarks that are believed to place the present case in condition for

allowance. Favorable reconsideration of all the pending claims is respectfully requested.

Initially, applicants thank the examiner for indicating that claim 17 is in allowable condition.

Nitsas discloses a herbal essential oil contained in a pharmaceutical composition containing at least 55% thymol and carvacrol wherein the ratio of carvacrol to thymol is at least 10:1, preferably 30:1, and more preferably 150:1. Nitsas even states that the "best antimicrobial activities have been observed in the range of 40:1 to 110:1. (See column 2, lines 66-67.) Finally, Nitsas discloses that the composition can be effectively utilized against diseases caused by Staphylococcus, Streptococcus, Salmonella and Escherichia Coli. (See column 4, lines 49-50, and column 5, lines 22-25.)

The claimed invention is directed to a medicament for the treatment of diseases caused by Treponema which comprises the natural substances carvacrol in an amount of 5 ppm to 90% by dry weight, and thymol in an amount of 5 ppm to 80% by dry weight, the weight ratio between carvacrol and thymol being from 1:5 to 10:1. Allowed claim 17 utilizes the same medicament of claim 14 to treat swine dysentery.

Applicants respectfully submit that Nitsas **does not disclose or suggest the treatment of diseases caused by Treponema**. Further, the claimed invention utilizes a medicament having a ratio of carvacrol to thymol of **2:3 to 10:1, preferably 2:3 to 4:1**. Nitsas discloses an **absolute bottom ratio of 10:1**, and preferable utilizes a much higher ratio of up to **150:1**. In fact, Nitsas discloses that **the "best antimicrobial activities have been observed in the range of 40:1 to 110:1"** (See column 2, lines 66-67.). Applicants respectfully submit that this clearly teaches against the presently claimed range which has an **upper limit of 10:1**, and a **preferred limit of 2:3 to 4:1**. Finally, the examiner is respectfully directed to the examples in the present application

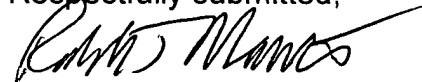
where the inventors demonstrate that the claimed medicaments having a ratio of carvacrol to thymol of **2:3 to 10:1**, **preferably 2:3 to 4:1** have a strong synergistic effect in the treatment of *Treponema*. **Certainly, one of ordinary skill in the art would NOT have been able to predict such a result from the disclosure of Nitsas.**

In view of the foregoing distinguishing commentary, applicants respectfully submit that the rejection of applicants' claims over Nitsas is improper; reconsideration and withdrawal thereof is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Therefore, the present case is believed to be in condition for allowance, which action is respectfully solicited.

Respectfully submitted,



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Version with markings to show changes made

14. A medicament for the treatment of diseases caused by Treponema which comprises ~~the composition of claim 1~~ the natural substances carvacrol in an amount of 5 ppm to 90% by dry weight, and thymol in an amount of 5 ppm to 80% by dry weight, the weight ratio between carvacrol and thymol being from 1:5 to 10:1.

18. The composition of claim 14 wherein the weight ratio between carvacrol and thymol ~~is~~ being from 2:3 to 4:1.

23. A bactericide which comprises the composition of claim 14 in an amount to kill bacteria.